



Food Security

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This paper is the first in a series entitled *Resources and Security*.

INTRODUCTION

“The President and I intend to focus new attention on food security...”

—Secretary of State Hillary Rodham Clinton¹

For a majority of Americans and western Europeans, sufficient food is readily accessible and its cost is a relatively small percentage of their annual income. This, however, is not the case for almost a billion people around the world, including large numbers in the strategically important states of Egypt, India, China, the Democratic Republic of Congo, Indonesia, Pakistan and Ethiopia.² In these countries, and in others, food *insecurity* has been or is a contributor to regional or domestic *instability*,

[In 2007] ...there were the tortilla riots in Mexico City: 75,000 angry demonstrators, mostly poor, taking to the streets to protest the surging price of a food staple. Then in Italy, merchants from Milan began clamoring about the cost of pasta. By year’s end, protests had broken out in at least a dozen countries: in India over onions, in Indonesia over soybeans, and, last month, in the small African country of Burkina Faso, where hundreds of looters burned government buildings to protest soaring grain prices.³

[In 2008, in] Bangkok, Thailand – Rice farmers here are staying awake in shifts at night to guard their fields from thieves. ...In Egypt, Cameroon, and Burkina Faso food riots have broken out in the past week.⁴

Slightly over two months after these news reports, in a single week of May 2008, there were significant food-related protests, civil disturbances, and riots occurring in 13 other countries, including Russia.⁵ Even if many of these instances were principally driven by the high costs of food, rather than absolute scarcity of resources, it must be accepted that there were significant repercussions for stability and good governance in countries critical to U.S. National Security interests over the past eight years.

The United States and its NATO allies have learned from recent conflicts and stability operations that “Risks to Allied security are less likely to result from calculated aggression against the territory of the Allies [by other nation-states], but rather from the adverse consequences of instabilities that may arise from serious economic, social, and political difficulties...”⁶

Therefore, even though the Department of State and Department of Agriculture are already focusing on fulfilling President Obama’s pledge during his inaugural address, *“To the people of poor nations, we [will] work alongside you to make your farms flourish and let clean waters flow; to nourish starved bodies and feed hungry minds”*⁷ the Defense Department, the entire U.S. interagency community, and the international community as a whole need to consider the

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full range of potential national security ramifications associated with food security. This article is intended to provide a starting – but not the finishing – point.

BACKGROUND

Human Security and its seven tenets, *Economic Security, Food Security, Health Security, Environmental Security, Personal Security, Community Security and Political Security* have added a new dimension to the national security paradigm. While the security of nation states remains central to the discourse concerning U.S. security policy, human security is now being recognized as a critical variable in regime tenure and regional stability, which are themselves two variables critical to achieving U.S. national security interests. Simply put, governments that cannot provide freedom from want and freedom from fear for their people will struggle to maintain legitimacy and power. Recent history has shown multiple U.S. allies struggling with food security issues; it is not likely that this threat to their stability will fade of its own accord.

The United Nations has published several seminal reports on human security. In 1987 the Brundtland Report “alerted the world to the urgency of making progress toward economic development that could be sustained without depleting natural resources or harming the environment”⁸ and in 1994 the United Nations Development Program (UNDP) released its “Human Development Report.” These reports – in particular the 1994 report – focused increased international attention on Human Security, its tenets and the tie to regional stability. Importantly, the 1994 report “redefined security as a focus on people rather than territories and with development rather than arms.”⁹

This focus on people was affirmed at a November 1996 World Food Summit, held at the FAO headquarters in Rome Italy. At that 1996 summit a definition of Food Security was agreed upon by the participants which said “*Food security exists when all people at all times have physical or economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.*”¹⁰ Participants further clarified the parameters of Food Security by stating “*Food security exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.*”¹¹ In May of 2007 this viewpoint was reaffirmed again at the 33rd Session of the Committee on World Food Security the United Nations Food and Agriculture Organization:

“*FAO’s vision of a world without hunger is one in which most people are able, by themselves, to obtain the food they need for an active and healthy life, and where social safety nets ensure that those who lack resources still get enough to eat.*”¹²

Unfortunately, that vision has yet to be achieved – or even adequately addressed. Thus Food Security remains a national security issue today and for the foreseeable future unless appropriate action is undertaken.

CURRENT SITUATION

Where are the problems?

The issues and challenges associated with Food Security are many and varied, with human population growth argued by many to be first on the list. World population already has increased 1.5 billion above the 5 billion mark of 1987.¹³ Projections are it will reach 9 billion people by 2050, an further increase of some 2.5 billion when compared to today, with the most marked increase coming from Africa (See adjacent table).¹⁴

Increased world population will contribute to increased urbanization. 2007 was reported as being the first year in history when more than half of all people lived in cities.¹⁵ Any increase in the rate of rural

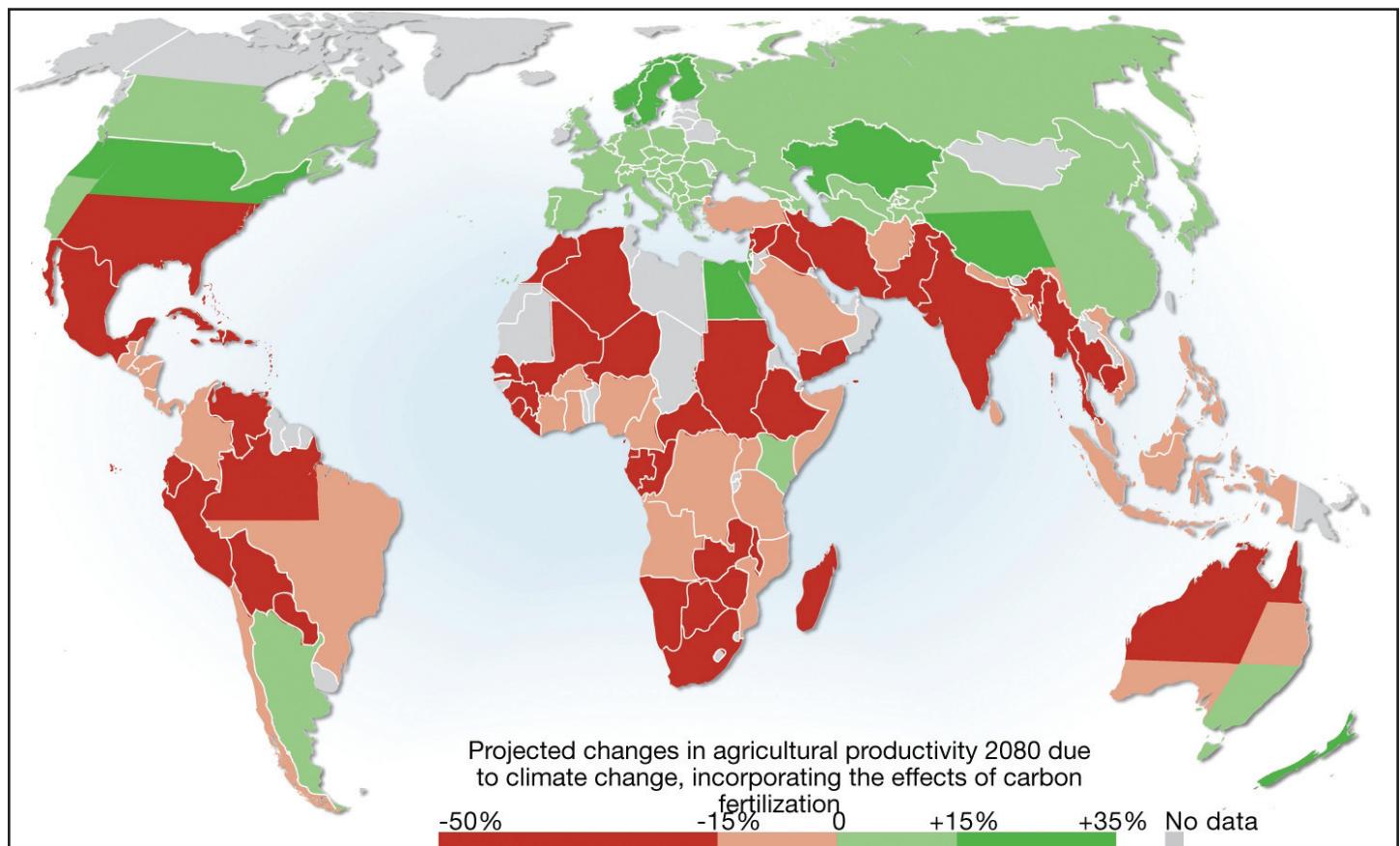
Projected World Population			
Region	2005	2050	Per Cent
World	6465	9076	+ 40
High Income	1211	1236	+2
Low income	5253	7840	+49
Africa	906	1937	+114
Asia	3905	5217	+33
Latin America	561	783	+40
North America	331	438	+32
Europe	728	653	-10

to urban migration is detrimental due to the possibility of overwhelming city infrastructure capacity, which already is of particular concern in Latin America. Increased population and overwhelmed infrastructure will aggravate shortages of fresh water and further boost rising energy prices. Together all these create doubts that production increases can or will meet the growing food requirement. To what degree – and how – will governments (especially fledgling democracies) be able to meet this vital demand and provide their population with “freedom from want?”

Climate Change is also a critical concern. Regardless of the root cause, any variance in the climate or the pattern of precipitation is likely to have immediate effects not only on a region but on food markets worldwide. For example, since 2007 erratic rainfall in southern Africa has exacerbated the regional food shortage problem as droughts destroyed maize crops (a staple of the region) in Lesotho, Namibia, Mozambique, Swaziland, Zimbabwe and South Africa.¹⁶ This has become a particular concern to the government of South Africa as large migrations from neighboring Zimbabwe are overwhelming their ability to provide adequate food for the indigenous population and giving rise to xenophobic violence.

Other regions, such as the Pacific Rim nations, are also feeling the effects from climate change on their Food Security situation. For example, a study on the Republic of the Marshall Islands concluded that due to increased tropical storms and droughts their once abundant staple crops of copra, breadfruit and pandanus have been greatly reduced. The rising sea level and increase of tropical storms further threatens Food Security through saltwater encroachment and the increase of salt content of the soil.¹⁷

More importantly, Pacific states such as the Marshall Islands, Fiji, Vanuatu, Papua New Guinea and the Federated States of Micronesia not only fear a food shortage, but of losing their cropland altogether. These low lying island nations are already feeling the effects of climate change. They currently are experiencing more frequent violent storms as well as soil erosion and salt water affecting clean water wells, which if unchecked could cause a mass exodus of over 80 million people from the region.¹⁸ The United Nations Environment Program map below provides an estimation of world agriculture in 2080 influenced by climate change.



‘Projected agriculture in 2080 due to climate change,’ UNEP/GRID-Arendal Maps and Graphics Library, 2008. Retrieved 20 April 2009 from <http://maps.grida.no/go/graphic/projected-agriculture-in-2080-due-to-climate-change> © Hugo Ahlenius, UNEP/GRID-Arendal

China's Growth

The geopolitical importance of Food Security is growing as China makes it a major driver of its foreign policy. China's voracious appetite for natural resources includes food. Drought in northern China has reduced agricultural productivity and contributes to China becoming a large grain importer. Before 1995 China exported soybeans, but by 2007 they imported over 30 million tons. As a result, China is heavily investing in overseas agricultural ventures, particularly in Africa to feed their growing population. China's acute interest in the region is chiefly due to the rich soil in southern Africa. For example, in the spring of 2008, the Chinese government pledged \$800 million as an investment to modernize Mozambican agriculture. Their objective in Mozambique is to increase rice production from 100,000 tons currently, to 500,000 tons a year in the next five years.¹⁹ China is also heavily investing both time and money into the agriculture sectors of Tanzania, Malawi and Angola. In Tanzania, they are investing in the modernization of the irrigation techniques as well as teaching improved managerial skills and sharing advanced biotechnology information. Malawi is benefitting from Chinese improvements to their irrigation system and a substantial canal construction project to connect Malawi to Mozambique via Lake Malawi. Chinese agricultural assistance to Angola includes the areas of increased beef production and increasing crop yields for coffee, tropical fruits, sugar and cotton.²⁰ Additionally, China is raising substantial cattle herds in Zimbabwe to feed the dietary changes of their growing middle class. Long a champion of the developing world, China's quest for food security brings significant investment to the resource rich countries and enhances China's regional influence.

Seeking Solutions to the Food Security problem

Non-Governmental (NGO) and International Organizations (IO)

In addition to the United States and other central governments being concerned about food security as a national security interest, a variety of NGOs and IOs are engaged in Food Security initiatives and activities.

The U.S. has traditionally provided food aid, committing over \$5.5 billion in fiscal years 2008 and 2009 alone to fight world hunger.²¹ As the primary U.S. State Department agency charged with international development, the United States Agency for International Development (USAID) is involved in a variety of Food Security initiatives to include:

- Providing immediate and expanded humanitarian response
- Investing in staple food production for vulnerable states
- Supporting trade liberalization to reduce price volatility
- Increase availability and use of advanced agricultural technologies²²

Even though global food prices have declined since 2008, they are still high in many developing nations. As such USAID is focused on the continued unpredictable world financial situation, which has added to the ranks of nearly a billion people living with chronic poverty and hunger.

The United Nations Food and Agriculture Organization (FAO), also has a direct focus on Food Security issues. Through the Food Insecurity and Vulnerability Information and Mapping System, (FIVIMS), the FAO works to identify vulnerable states, provide data on the economic and food situation of the states, and develop techniques in attaining food security.²³ The information supplied by FIVIMS influences donor strategies with Food Security or water shortages in a particular area. To meet the high demand from the donor community, the FAO also actively resources the Global Information and Early Warning System (GIEWS) that provides additional accurate and accessible information on mapping and vulnerability assessments.²⁴

Another international organization, the U.N.'s World Food Program (WFP), specifically targets world food malnourishment and develops appropriate food security initiatives. For example, in 2008 the WFP provided food for over 102 million people in 78 different countries.²⁵ In much the same fashion as the FAO, the WFP prioritizes the most vulnerable areas to food shortages so they can quickly and adequately respond.²⁶

Oxfam, another prominent international organization, recently launched an agriculture campaign focused on lowering food prices. Oxfam International was formed in 1995 by a group of independent non-governmental

organizations with a focus on “working together for greater impact on the international stage to reduce poverty and injustice”. The name originated from the “Oxford Committee for Famine Relief,” founded in Great Britain in 1942, which campaigned for food supplies to send to women and children in enemy-occupied Greece during the Second World War.²⁷ In Ghana, Oxfam is assisting farmers through financial support and teaching the local population new skills to find other sources of income.²⁸ Oxfam also raises the attention of certain crises to governmental officials in order to encourage intervention. The organization specifically recognized the deteriorating food market in Malawi in 2008, and brought attention to the crisis by contacting politicians and diplomats.²⁹ Subsequently, Malawi has received global attention on its critical food situation and is receiving global aid from organizations such as the U.N.

Regional Organizations

*“Human security is increasingly included in the agendas and the policy debates of intergovernmental and regional organizations such as the G7/G8, the African Union (AU), the Association of South East Asian Nations, and the European Union (EU).”*³⁰

At the food summit of December 2006 the AU proposed an initiative for “increasing food supply, reducing hunger and improving responses to food emergency crises.”³¹ The AU also recommended, “Member states and RECs promote and protect rice, legumes, maize, cotton, oil palm, beef, dairy, poultry and fisheries products as strategic commodities at the continental level.”³² Sustainability of these cash crops was deemed extremely important in order to insure food security throughout the African continent. The AU has also increased the number of AU-sponsored fixed wing aircraft operating in the Sudan region, thereby increasing the capacity for food supply transportation and making it more readily available.³³

Although not normally considered a food poor region, Europe is concerned about Food Security, both internally and in neighboring regions that have traditionally spawned immigration – legal and illegal – to the continent. The European Union (EU) is guarding its Food Security with several initiatives. One is management of the EU fishing industry, which yields some 6.9 million tons of fish annually and provides jobs for more than 400,000 people in the region. To ensure a continuous supply of fish the EU in 2005 established the Community Fisheries Control Agency, based in Brussels. The mission of that Agency is to ensure compliance with policies and procedures designed to ensure the area is not overfished.³⁴ Although overfishing remains an issue, the attention and resources committed to this initiative demonstrate the increasing level of EU commitment to food security.



Increased incomes, such as in Asia, generally lead to higher consumption of meat and hence, increased demand for cereal as livestock feed. (Source: World Bank, 2008).

In another instance, “the European Commission has approved 16 programs in 12 Member States...to provide information on and to promote agricultural products in the European Union,” which include a broad spectrum of dairy products and meats.³⁵ The purpose of this particular initiative is to stabilize the regional agriculture market and lower prices.

The North Atlantic Treaty Organization is also concerned with Food Security at the strategic and operational levels, through their Food and Agriculture Planning Committee (FAPC). NATO’s FAPC is charged with responsibility for “ensuring the expertise and experience in the food, agriculture and water sector serves NATO’s civil and military needs to maximize effect through the exchange of information and best practices.”³⁶ As one example of the type of activities NATO undertakes, the FAPC in partnership with the Romanian Ministry of Agriculture explored vulnerabilities in food, water, and agricultural sectors of Romania.³⁷ This effort assessed food security issues within Romania and other vulnerable states, and continues to work closely with UN food programs to assist NATO’s civil and military needs. Another NATO initiative included a February 2004 forum conducted in Berlin, at which 300 member delegates discussed a variety of topics associated with methods to improve food security.³⁸

THE WAY AHEAD

These traditional resources for addressing Food Security may not be sufficient in the future. Already in the U.S., the leading producer of food aid, urban populations are demanding that water normally allocated for agriculture production in California be re-directed to urban centers. On the nation’s breadbasket of the Great Plains, the disposition of the region’s main water source, the Ogallala Aquifer is also in question. Ever since the growing depletion of this critical water source was discovered in the 1970s, the appropriate allocation of water between irrigation for food production and other usages has been a divisive policy issue.³⁹

Food Security, along with other environmental issues such as climate change, is a critical issue in developing countries and is likely to exacerbate tensions over natural resource competitions and health issues. Combined with extremist ideology, this easily can create potentially significant survival issues for weak or at risk states. Changes in patterns of agricultural production, dependence on market prices, and the availability of food will become more difficult to manage. The failure to do so effectively will challenge the legitimacy of democratically elected governments.

Only creating the correct balance between the ends, ways, and available means of all stake holders – national and local governments, NGOs and IO’s, the Private Sector and regional organizations – will it be possible to adequately address the potential threat of Food Insecurity. Conferences and meetings are important as confidence building opportunities to create cooperation on an issue of common interest. Workshops and interactions which produced a well thought out and capable of being executed strategic plan for Food Security would go far in reducing regional instability and diminish conditions that foster terrorism in developing countries.

If or when changes in the climate significantly affect influential nations such as Egypt, The Philippines, India, Pakistan and China, the importance of food security as a U.S. National Security interest will increase exponentially. The U.S. needs to participate fully in the debate over preventive and reactive actions as Food Security grows in importance to overall U.S. National Security.

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